IN REPLY REFER TO: MT-450

United States Department of the Interior

BUREAU OF RECLAMATION
Great Plains Region
Montana Area Office
P.O. Box 30137
Billings, Montana 59107-0137

June 12, 2008

FAXOGRAM: Water Order Change

To: Chief, Power Supply and Billing Division, WAPA, Watertown, South Dakota
Attention: F-6001
Chief, Power Dispatching Branch, WAPA, Loveland, Colorado
Attention: J-4120
Facilities Manager, Hardin, Montana
Attention: MT-300: Tom Tauscher
Project Manager, Mills, Wyoming
Attention: WY-4000, WY-4100, WY-6400
Assistant Superintendent, National Park Service, Lovell, Wyoming
Attention: Jim Staebler

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 08-26**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3634.21; Storage: 1,002,440 acre-feet; River Release: 7,200 cfs; Inflow: 8,530 cfs;

GENERAL COMMENTS:

Inflows to Bighorn Lake continue to remain well above average. With increases in releases out of Boysen Reservoir planned, plans are to also increase releases out of Bighorn Lake to control the rate of fill. Recent streamflow measurements also indicated actual river flows were higher than anticipated. In response, the following operation change is required at Yellowtail Dam and Bighorn Lake.

NOTE: This is the time period when fish are more susceptible to high levels of nitrogen gas super-saturation. To provide a more desirable mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates to maintain the total gas super-saturation levels at safe limits, the minimum Afterbay elevation should be maintained at or above elevation 3183 whenever possible. This is only a soft limit and may be deviated from during special or emergency operations.

TURBINE RELEASES:

At 1900 hour on Thursday, June 12, 2008:
Maintain average daily turbine release at 7,330 cfs (≈ 5,864 MW-Hrs/day using 30.0 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1900 hour on Thursday, June 12, 2008:
Maintain diversions to the Bighorn Canal at 200 cfs (gage height = 72.21 with 0.0 shift).
Increase Spillway Release to approximately 1,500 cfs (minimum gate opening 0.5 ft)
Increase release to Bighorn River at 8,700 cfs (gage height = 63.21 & apply new shift of 0.08).
Increase total release from the Afterbay at 8,900 cfs.

Note: It is critical to make sure the minimum gate opening on the spillway is satisfied even if the flow varies slightly.

/S/ Tim H. Felchle